

Abstract of the Disclosure

5 A method to trace, detect, discover and monitor the nodes traversed by a light  
path from its source to its destination in an Optical Communication Network (OCN) is  
provided. In accordance with the embodiment of the invention, the system examines  
various provisioned and discovered optical nodes either sequentially or in parallel to  
determine whether a unique signature (wavekey) associated with the light path is  
present. Connectivity and mis-fibering problems are detected by sequentially  
10 examining provisioned nodes in the light path to determine if the wavekey  
associated with the light path can be observed. Control Network topology  
information is utilized to contact all nodes in the network to trouble-shoot mis-fibering  
problems.

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